

Work Order ID 77733, 75206  
December-19-11 12:34:31 PM

\*77733\*

Page 1

Item ID: D3199-4

Accept

\*N900040100\*

Setup Start

\*NS1\*

Revision ID:

Item Name: Bracket, Fwd RH

Stop

\*NS2\*

Start Date: 19/12/2011 Start Qty: 4.00

\*4\*

Cust Item ID:

Required Date: 23/12/2011 Req'd Qty: 4.00

\*4\*

Customer:

Reference:

Approvals: Process Plan: M.L.5 Date: 11/12/11 Tooling: Date: Run Start \*NR1\*  
QC: Date: SPC (Y/N): Date: Stop \*NR2\*

| Sequence ID/<br>Work Center ID | Operation<br>Description | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| Draw Nbr                       | Revision Nbr             |                      |         |        |              |               |               |                  |                |
| D3199                          | E                        |                      |         |        |              |               |               |                  |                |

100

\*100\*

Waterjet

FLOW CNC Waterjet

Memo

Cut as per Dwg D3199

Dwg Rev: \_\_\_\_\_

Prog Rev: \_\_\_\_\_

Deburr if required

0.00

0.00

0.00

110

\*110\*

QC

Quality Control

QC2- Inspect parts off machine FAI/FAIB

Memo

75206

w/o 75206 was split but closed  
can no longer open close w/o's  
See 75206 for

these steps

11/12/11

| W/O: |      | WORK ORDER CHANGES |  |  |    |      |     |                                     |                          |
|------|------|--------------------|--|--|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   |  |  | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |  |  |    |      |     |                                     |                          |
|      |      |                    |  |  |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |  |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|--|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |  |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |  |
|      |      |                                  |                             |                                 |                |                           |                       |                          |  |
|      |      |                                  |                             |                                 |                |                           |                       |                          |  |
|      |      |                                  |                             |                                 |                |                           |                       |                          |  |

NOTE: Date & initial all entries

Work Order ID 77733

December-19-11 12:34:31 PM

\*77733\*

Page 2

Item ID: D3199-4

Accept

\*N900040100\*

Setup Start

\*NS1\*

Revision ID:

Item Name: Bracket, Fwd RH

Stop

\*NS2\*

Start Date: 19/12/2011 Start Qty: 4.00

\*4\*

Cust Item ID:

Required Date: 23/12/2011 Req'd Qty: 4.00

\*4\*

Customer:

Reference:

Approvals:

Process Plan: \_\_\_\_\_

Date: \_\_\_\_\_

Tooling: \_\_\_\_\_

Date: \_\_\_\_\_

Run Start

\*NR1\*

QC:

Date: \_\_\_\_\_

SPC (Y/N): \_\_\_\_\_

Date: \_\_\_\_\_

Stop

\*NR2\*

Sequence ID/  
Work Center ID

120

\*120\*

QC

Quality Control

Operation  
Description

QC8- Inspect parts - second check

Set Up/  
Run Hours

0.00

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

Memo

*QC8- Inspect parts - second check*

0.00

130

\*130\*

Brake NC

Brake NC

Bend as per dwg

Small Fab

Memo

0.00

*SJ 11/12/12*

0.00

140

\*140\*

QC

Quality Control

QC5- Inspect part completeness to step on W/O

Memo

0.00

0.00

*SJ 11/12/12*

*(44)* \_\_\_\_\_  
*44* \_\_\_\_\_

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

NOTE: Date & initial all entries

Work Order ID 77733

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\*77733\*

Page 3

Item ID: D3199-4

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\*N900040100\*

Setup Start

\*NS1\*

Revision ID:

Item Name: Bracket, Fwd RH

Stop

\*NS2\*

Start Date: 19/12/2011 Start Qty: 4.00

\*4\*

Cust Item ID:

Required Date: 23/12/2011 Req'd Qty: 4.00

\*4\*

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

\*NR1\*

QC:

Date:

SPC (Y/N):

Date:

Stop

\*NR2\*

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

150

Grey Sandtex(Ref:4.3.5.6) per QSI005 4.3

0.00

\*150\*

Powdercoat

Powder Coating

W118489

Memo

9-10 0.00  
START TIME: 320°F  
OVEN TEMPERATURE: 9-40

4XPM 11/12/21

160

QC3- Inspect Part Finish

0.00

\*160\*

QC

Quality Control

Memo

0.00

4 6 11/12/21

170

Identify as per dwg & Stock Location 236B

0.00

\*170\*

Packaging

Packaging

Memo

0.00

11/12/21 SP (4)

| W/O: |      | WORK ORDER CHANGES |  |  |    |      |     |                                     |                          |
|------|------|--------------------|--|--|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   |  |  | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |  |  |    |      |     |                                     |                          |
|      |      |                    |  |  |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

NOTE: Date & initial all entries

Work Order ID 77733

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\*77733\*

Page 4

Item ID: D3199-4

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\*N900040100\*

Setup Start

\*NS1\*

Revision ID:

Item Name: Bracket, Fwd RH

Stop

\*NS2\*

Start Date: 19/12/2011 Start Qty: 4.00

\*4\*

Cust Item ID:

Required Date: 23/12/2011 Req'd Qty: 4.00

\*4\*

Customer:

Reference:

|            |               |       |            |       |      |       |       |
|------------|---------------|-------|------------|-------|------|-------|-------|
| Approvals: | Process Plan: | Date: | Tooling:   | Date: | Run  | Start | *NR1* |
|            | QC:           | Date: | SPC (Y/N): | Date: | Stop |       | *NR2* |

| Sequence ID/<br>Work Center ID               | Operation<br>Description                            | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp     |
|--|---|----------------------|---------|--------|--------------|---------------|---------------|------------------|--------------------|
| 180<br><b>*180*</b><br>QC<br>Quality Control | QC21- Final Inspection - Work Order Release<br>Memo | 0.00                 |         |        |              |               |               | 11/12/23         | <i>[Signature]</i> |

*Job 2  
at 4 on + 1500*

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
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| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

NOTE: Date & initial all entries

**Picklist Print**

December-19-11 12:34:40 PM

Page 1

Work Order ID: 77733

**\*77733\***

Parent Item: D3199-4

**\*D3199-4\***

Parent Item Name: Bracket, Fwd RH

Start Date: 19/12/2011

Required Date: 23/12/2011

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP RevA: RevC-prelim DD verified by:EC  
11.03.31 as per ecn 11-531 DD verf:EC

IPP Rev:B

| Component Item ID/<br>Item Name | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand | Qty per Kit | Total<br>Qty | Qty<br>Issued | Date<br>Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|
| M304S20GA                       |                        | Purchased     |             | No                  |                  | 100             | sf                 | 257.5165       | 0.1673      | 0.704421     |               |                |        |

**\*M304S20GA\***

304/316 .040 Sheet

| <u>Location</u> | <u>Loc Qty</u> | <u>Loc Code</u> |
|-----------------|----------------|-----------------|
| MAT020          | 257.5165       |                 |
| 116623          | 0.2            |                 |
| 117933          | 27.3442        | 117933          |
| 118400          | 25.6723        |                 |
| 118964          | 36.5           |                 |
| 119346          | 167.8          |                 |

\*\*

SA 11/12/11

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

NOTE: Date & initial all entries

|  |                     |                    |
|--|---------------------|--------------------|
| <b>DART AEROSPACE LTD</b>                  | <b>Work Order:</b>  | <u>77733</u>       |
| <b>Description:</b> Bracket                | <b>Part Number:</b> | <u>D3199-4</u>     |
| <b>Inspection Dwg:</b> D3199 <b>Rev:</b> D |                     | <b>Page 1 of 1</b> |

# **FIRST ARTICLE INSPECTION CHECKLIST**

|                     |  |                    |  |                              |  |
|---------------------|--|--------------------|--|------------------------------|--|
| <b>Measured by:</b> |  | <b>Audited by:</b> |  | <b>Preliminary Approval:</b> |  |
| <b>Date:</b>        |  | <b>Date:</b>       |  | <b>Date:</b>                 |  |

| Rev | Date     | Change                           | Revised by | Approved |
|-----|----------|----------------------------------|------------|----------|
| A   | 10.12.21 | New Issue                        | KJ         |          |
| B   | 11.04.06 | Dimensions updated per Dwg Rev D | KJ         |          |

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

NOTE: Date & initial all entries

8

7

6

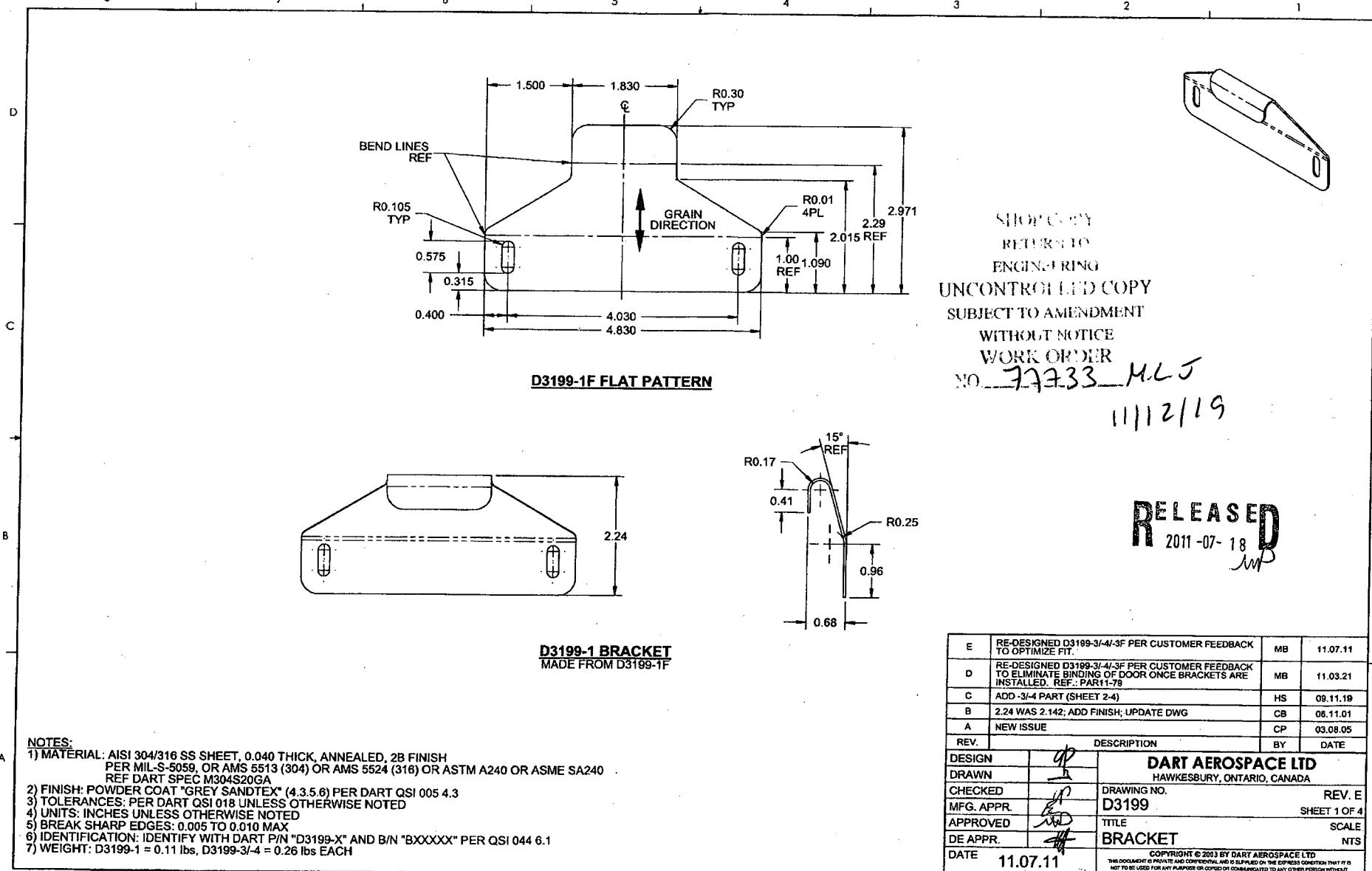
5

4

3

2

1



| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

NOTE: Date & initial all entries

77733

8 7 6 5 4 3 2 1

D

C

B

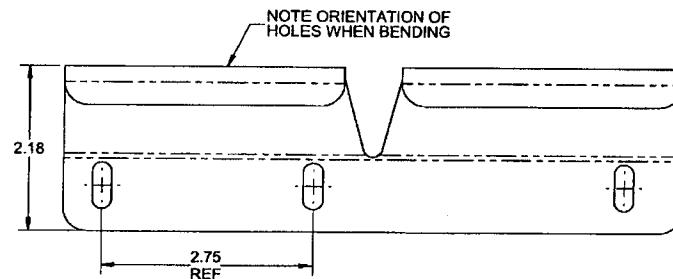
A

D

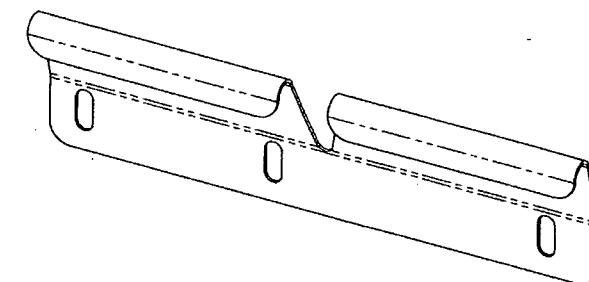
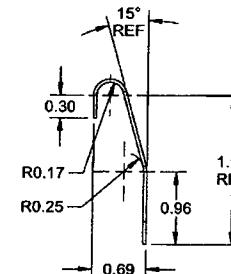
C

B

A



D3199-3 BRACKET  
MADE FROM D3199-3F



RELEASED  
2011-07-18  
MP

8 7 6 5 4 3 2 1

|            |                    |                             |
|------------|--------------------|-----------------------------|
| DESIGN     | <i>[Signature]</i> | DART AEROSPACE LTD          |
| DRAWN      | <i>[Signature]</i> | HAWKESBURY, ONTARIO, CANADA |
| CHECKED    | <i>[Signature]</i> | REV. E                      |
| MFG. APPR. | <i>[Signature]</i> | DRAWING NO.<br>D3199        |
| APPROVED   | <i>[Signature]</i> | SHEET 2 OF 4                |
| DE APPR.   | <i>[Signature]</i> | TITLE<br>BRACKET            |
| DATE       | 11.07.11           | SCALE<br>NTS                |

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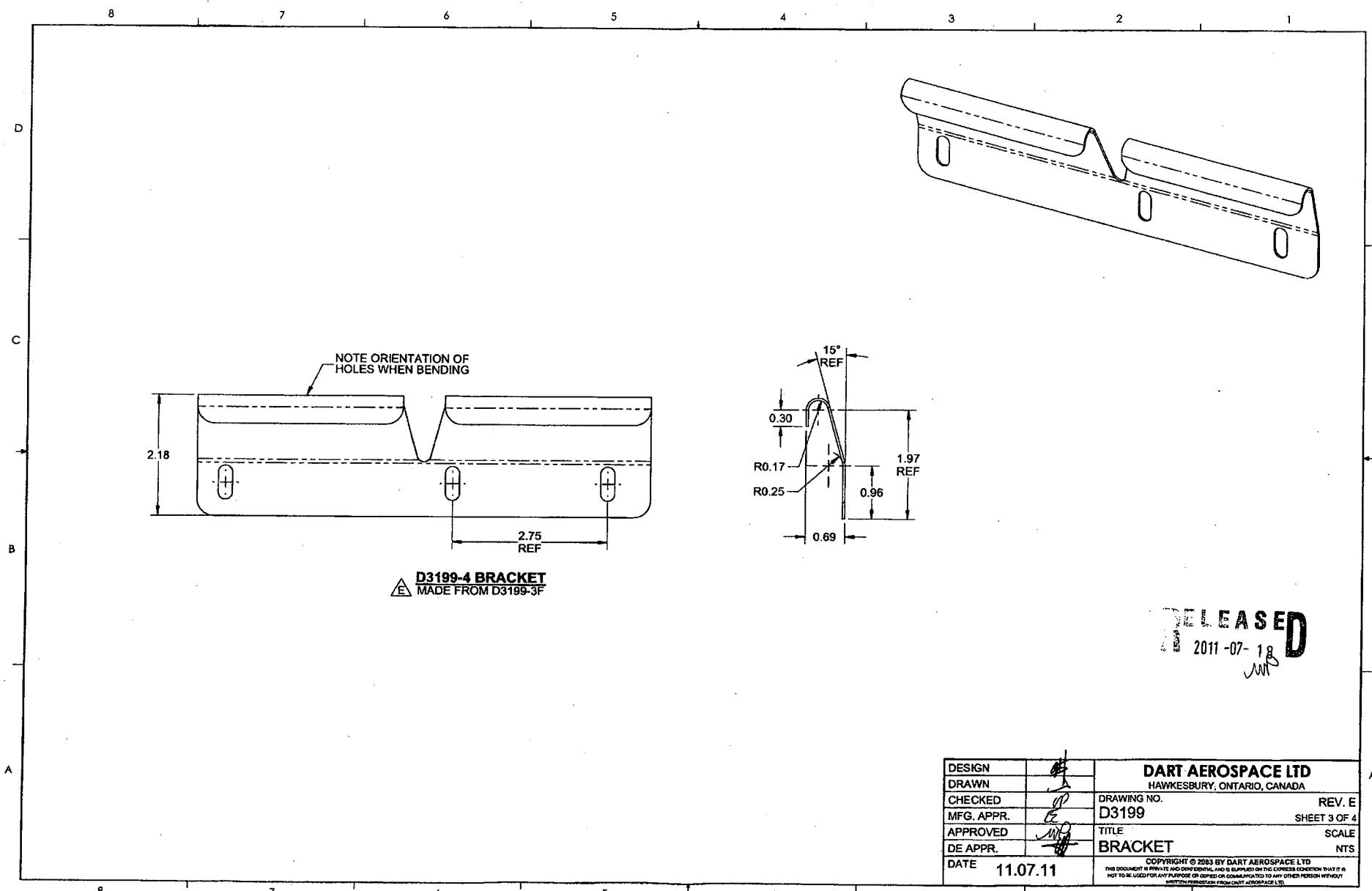
| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
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|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
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|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

NOTE: Date & initial all entries

77733



2011-07-18 AM 10:45

|   |               |  |              |  |
|---|---------------|--|--------------|--|
| DESIGN  | <del>1</del>  | DART AEROSPACE LTD                     |              |  |
| DRAWN   | <del>1</del>  | HAWKSBURY, ONTARIO, CANADA             |              |  |
| CHECKED   | <del>10</del> | DRAWING NO.                            | REV. E       |  |
| MFG. APPR.  | <del>EE</del> | D3199                                  | SHEET 3 OF 4 |  |
| APPROVED  | <del>MM</del> | TITLE                                  | SCALE        |  |
| DE APPR.  | <del>EE</del> | BRACKET                                | NTS          |  |
| DATE  | 11.07.11      | COPYRIGHT © 2003 BY DART AEROSPACE LTD |              |  |
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| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

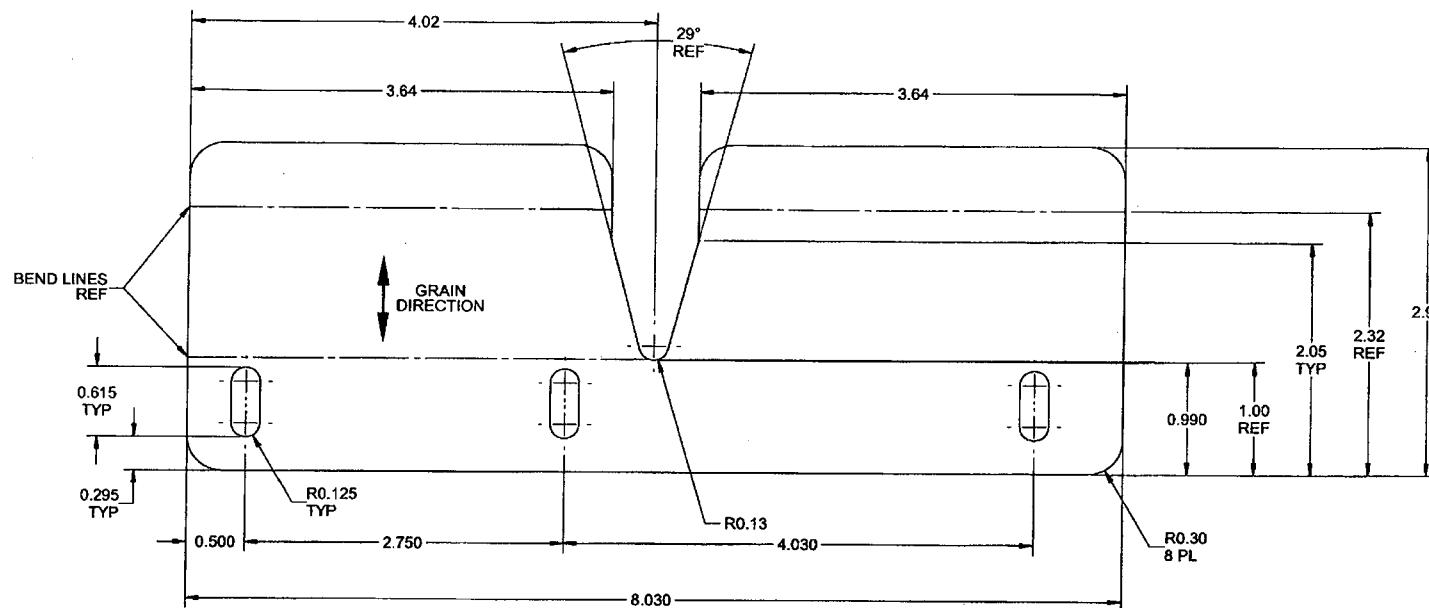
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

NOTE: Date & initial all entries

77733



△ D3199-3F FLAT PATTERN

RELEASED  
2011-07-18  
END

## NOTES:

1) MATERIAL: AISI 304/316 SS SHEET, 0.040 THICK, ANNEALED, 2B FINISH  
PER MIL-S-5059, OR AMS 5513 (304) OR AMS 5524 (316) OR ASTM A240 OR ASME SA240  
REF DART SPEC M304S20GA

2) FINISH: N/A

3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED

4) UNITS: INCHES UNLESS OTHERWISE NOTED

5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX

6) IDENTIFICATION: N/A

7) WEIGHT: 0.25 lbs

|            |           |   |              |  |
|------------|-----------|---|--------------|--|
| DESIGN     | <i>AS</i> | <b>DART AEROSPACE LTD</b><br>HAWKESBURY, ONTARIO, CANADA  |              |  |
| DRAWN      | <i>1</i>  |   |              |  |
| CHECKED    | <i>J</i>  | DRAWING NO.   | REV. E       |  |
| MFG. APPR. | <i>J</i>  | D3199   | SHEET 4 OF 4 |  |
| APPROVED   | <i>JW</i> | TITLE   | SCALE        |  |
| DE APPR.   | <i>MM</i> | BRACKET   | NTS          |  |
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| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

NOTE: Date & initial all entries

Work Order ID: **75206**

October-18-11 4:11:08 PM

Not to ship Oct 24 **Closed?**  
**\*75206\***

Page 1

Item ID: D3199-3

Accept

Revision ID:

Item Name: Bracket, Fwd LH

Start Date: 18/10/2011 Start Qty: 90.00

*\*90\**

**\*N900040100\***

Setup Start **\*NS1\***

Required Date: 04/11/2011 Req'd Qty: 90.00

*\*90\**

Stop **\*NS2\***

Reference:

Cust Item ID:

Customer:

Approvals: Process Plan: M.L.5

Date: 11/10/18

Tooling:

Date:

Run Start **\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop **\*NR2\***

| Sequence ID/<br>Work Center ID | Operation<br>Description | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|

|                                 |   |      |  |  |  |  |  |  |                  |
|---------------------------------|---|------|--|--|--|--|--|--|------------------|
| Draw Nbr                        | Revision Nbr                            |      |  |  |  |  |  |  |                  |
| D3199                           | E                                       |      |  |  |  |  |  |  |                  |
| 100<br><b>*100*</b><br>Waterjet | FLOW WATER JET                          | 0.00 |  |  |  |  |  |  | <u>B11-10-19</u> |
| FLOW CNC Waterjet               | Memo                                    | 0.00 |  |  |  |  |  |  | <u>M4</u>        |
|                                 | Cut as per Dwg D3199                    |      |  |  |  |  |  |  | <u>OK</u>        |
|                                 | Dwg Rev: <u>E</u>                       |      |  |  |  |  |  |  |                  |
|                                 | Prog Rev: <u>E</u>                      |      |  |  |  |  |  |  |                  |
|                                 | Deburr if required                      |      |  |  |  |  |  |  |                  |
| 110<br><b>*110*</b><br>QC       | QC2- Inspect parts off machine FAI/FAIB | 0.00 |  |  |  |  |  |  | <u>B11-10-19</u> |
| Quality Control                 | Memo                                    | 0.00 |  |  |  |  |  |  |                  |

Work Order ID 75206

October-18-11 4:11:08 PM

\*75206\*

Page 2

Item ID: D3199-3

Accept

\*N900040100\*

Setup Start

\*NS1\*

Revision ID:

Item Name: Bracket, Fwd LH

Stop

\*NS2\*

Start Date: 18/10/2011 Start Qty: 90.00

\*90\*

Cust Item ID:

Required Date: 04/11/2011 Req'd Qty: 90.00

\*90\*

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start

\*NR1\*

QC:

Date:

SPC (Y/N):

Date:

Stop

\*NR2\*

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

120

QC8- Inspect parts - second check

0.00

Subtotal

\*120\*

QC

Quality Control

0.00

Counts

114

QSP019

130

Bend as per dwg

0.00

Small Fab

Memo

0.00

\*130\*

Brake NC

Brake NC

140

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

\*140\*

QC

Quality Control

Work Order ID 75206

October-18-11 4:11:08 PM

\*75206\*

Page 3

Item ID: D3199-3

Accept

\*N900040100\*

Setup

Start

\*NS1\*

Revision ID:

Item Name: Bracket, Fwd LH

Stop

\*NS2\*

Start Date: 18/10/2011 Start Qty: 90.00

\*90\*

Cust Item ID:

Required Date: 04/11/2011 Req'd Qty: 90.00

\*90\*

Customer:

Reference:

| Approvals: | Process Plan: | Date: | Tooling:   | Date: | Run | Start | *NR1* |
|------------|---------------|-------|------------|-------|-----|-------|-------|
|            | QC:           | Date: | SPC (Y/N): | Date: |     | Stop  | *NR2* |

| Sequence ID/<br>Work Center ID                      | Operation<br>Description   | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|---|--|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| 150<br><b>*150*</b><br>Powdercoat<br>Powder Coating | Grey Sandtex(Ref:4.3.5.6) per QSI005 4.3<br><br>Memo<br>START TIME: _____<br>OVEN TEMPERATURE: _____<br>FINISH TIME: _____ | 0.00                 |         |        |              |               |               |                  |                |
| 160<br><b>*160*</b><br>QC<br>Quality Control        | QC3- Inspect Part Finish<br><br>Memo   | 0.00                 |         |        |              |               |               |                  |                |
| 170<br><b>*170*</b><br>Packaging<br>Packaging       | Identify as per dwg & Stock Location:<br><br>Memo  | 0.00                 |         |        |              |               |               |                  |                |

Work Order ID 75206

October-18-11 4:11:08 PM

\*75206\*

Page 4

Item ID: D3199-3

Accept

\*N900040100\*

Setup

Start

\*NS1\*

Revision ID:

Item Name: Bracket, Fwd LH

Stop

\*NS2\*

Start Date: 18/10/2011 Start Qty: 90.00

\*90\*

Cust Item ID:

Required Date: 04/11/2011 Req'd Qty: 90.00

\*90\*

Customer:

Reference:

| Approvals: | Process Plan: | Date: | Tooling:   | Date: | Run | Start | *NR1* |
|------------|---------------|-------|------------|-------|-----|-------|-------|
|            | QC:           | Date: | SPC (Y/N): | Date: |     | Stop  | *NR2* |

| Sequence ID/<br>Work Center ID | Operation<br>Description                            | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|---|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| 180<br><b>*180*</b><br>QC      | QC21- Final Inspection - Work Order Release<br>Memo | 0.00                 |         |        |              |               |               |                  |                |

W/O  
is already  
posted  
can not re-open  
(created new)  
W/O to  
pull part  
on #77B2

**Picklist Print**

October-18-11 4:11:12 PM

Page 1

Work Order ID: 75206

**\*75206\***

Parent Item: D3199-3

**\*D3199-3\***

Parent Item Name: Bracket, Fwd LH

Start Date: 18/10/2011

Required Date: 04/11/2011

Start Qty: 90.00

Required Qty: 90.00

Comments: IPP RevA: RevC-prelim DD verified by:EC  
11.03.31 as per ecn 11-531 DD verf:EC

IPP Rev:B

| Component Item ID/<br>Item Name | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand | Qty per Kit | Total<br>Qty | Qty<br>Issued | Date<br>Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|
| M304S20GA<br>304/316 .040 Sheet | *M304S20GA*            | Purchased     |             | No                  |                  | 100             | sf                 | 137.0795       | 0.1673      | 15.84947     |               | 18/10/2011     | **     |

| <u>Location</u> | <u>Loc Qty</u> | <u>Loc Code</u> |
|-----------------|----------------|-----------------|
| MAT020          | 137.0795       |                 |
| 116623          | 0.2            |                 |
| 117550          | 8.363          |                 |
| 117933          | 43.3442        | 117933          |
| 118400          | 25.6723        |                 |
| 118964          | 59.5           |                 |



DART AEROSPACE LTD

Work Order: 15206

Description: BRACKET

Part Number: D3199-3

Inspection Dwg: D3499-3 . Rev:

Page 1 of 1

## FIRST ARTICLE INSPECTION CHECKLIST

First Article       Prototype

Measured by:

8

Audited by:

#### Prototype Approval:

Date

11-1079

Date:

uncolor

Date:

REV

Date

Date

### Change

### New Issue

Revised by

KJ/JLM

8 7 6 5 4 3 2 1

D

C

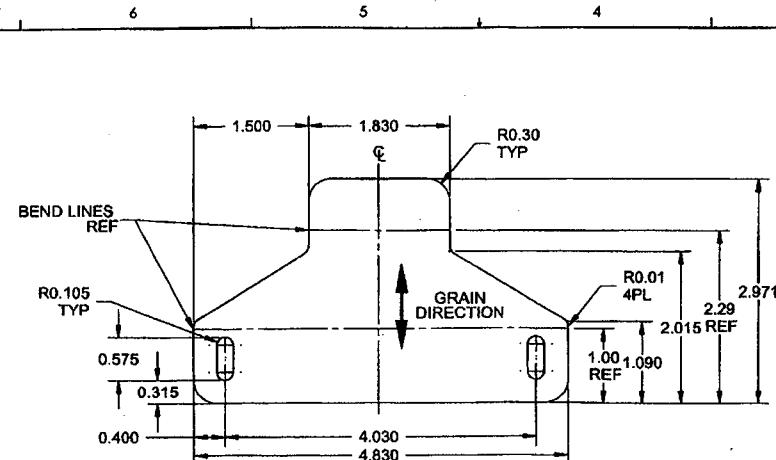
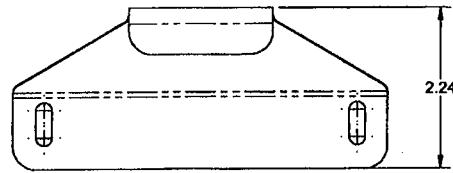
B

A

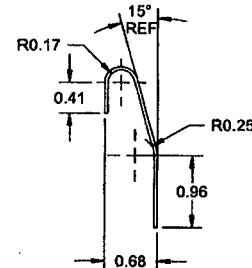
D

C

B

**D3199-1F FLAT PATTERN****D3199-1 BRACKET**  
MADE FROM D3199-1F**NOTES:**

- 1) MATERIAL: AISI 304/316 SS SHEET, 0.040 THICK, ANNEALED, 2B FINISH  
PER MIL-S-5059, OR AMS 5513 (304) OR AMS 5524 (316) OR ASTM A240 OR ASME SA240  
REF DART SPEC M304S20GA
- 2) FINISH: POWDER COAT "GREY SANDTEX" (4.3.5.6) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3199-X" AND B/N "BXXXX" PER QSI 044 6.1
- 7) WEIGHT: D3199-1 = 0.11 lbs, D3199-3/-4 = 0.26 lbs EACH



|            |  |  |              |
|------------|--|--|--------------|
| E          | RE-DESIGNED D3199-3/-4/-3F PER CUSTOMER FEEDBACK TO OPTIMIZE FIT.  | MB   | 11.07.11     |
| D          | RE-DESIGNED D3199-3/-4/-3F PER CUSTOMER FEEDBACK TO ELIMINATE BENDING OF DOOR ONCE BRACKETS ARE INSTALLED. REF. PAR11-78 | MB   | 11.03.21     |
| C          | ADD -3/-4 PART (SHEET 2-4)   | HS   | 08.11.19     |
| B          | 2.24 WAS 2.142; ADD FINISH; UPDATE DWG   | CB   | 08.11.01     |
| A          | NEW ISSUE  | CP   | 03.08.05     |
| REV.       | DESCRIPTION  | BY   | DATE         |
| DESIGN     | 92   | DART AEROSPACE LTD   |              |
| DRAWN      |  | HAWKESBURY, ONTARIO, CANADA  |              |
| CHECKED    |  | DRAWING NO.  | REV. E       |
| MFG. APPR. |  | D3199  | SHEET 1 OF 4 |
| APPROVED   |  | TITLE  | SCALE        |
| DE APPR.   |  | BRACKET  | NTS          |
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75206

8 7 6 5 4 3 2 1

D

C

B

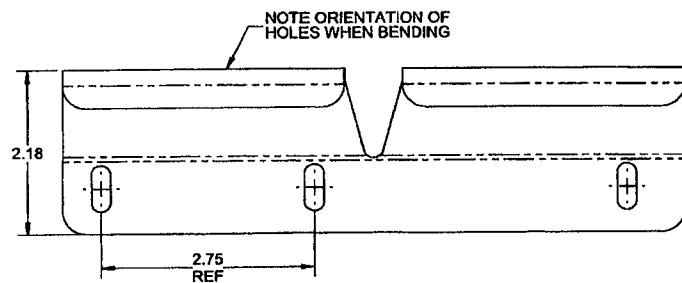
A

D

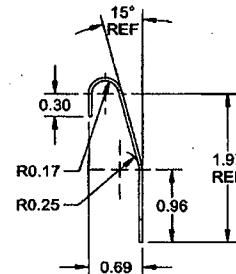
C

B

A



**D3199-3 BRACKET**  
MADE FROM D3199-3F



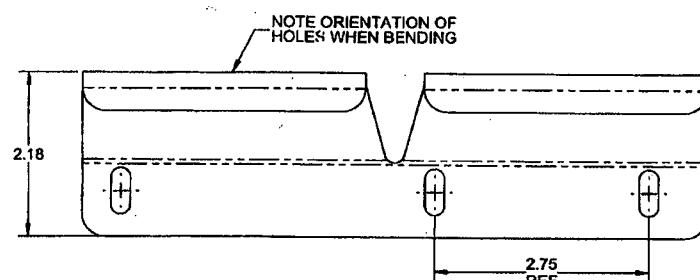
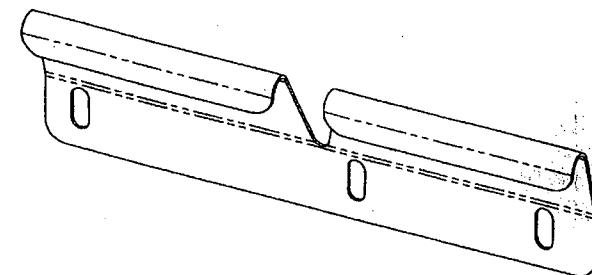
RELEASED  
2011-07-18  
M

8 7 6 5 4 3 2 1

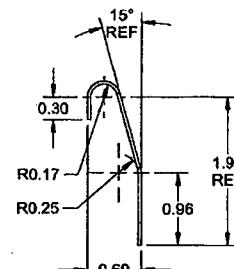
|            |            |                             |       |
|------------|------------|-----------------------------|-------|
| DESIGN     | <i>AP</i>  | <b>DART AEROSPACE LTD</b>   |       |
| DRAWN      | <i>JK</i>  | HAWKESBURY, ONTARIO, CANADA |       |
| CHECKED    | <i>JP</i>  | REV. E                      |       |
| MFG. APPR. | <i>EP</i>  | DRAWING NO.                 | D3199 |
| APPROVED   | <i>WHD</i> | SHEET 2 OF 4                |       |
| DE APPR.   | <i>WHD</i> | TITLE                       | SCALE |
| DATE       | 11.07.11   | BRACKET                     | NTS   |

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75206



**D3199-4 BRACKET**  
MADE FROM D3199-3F

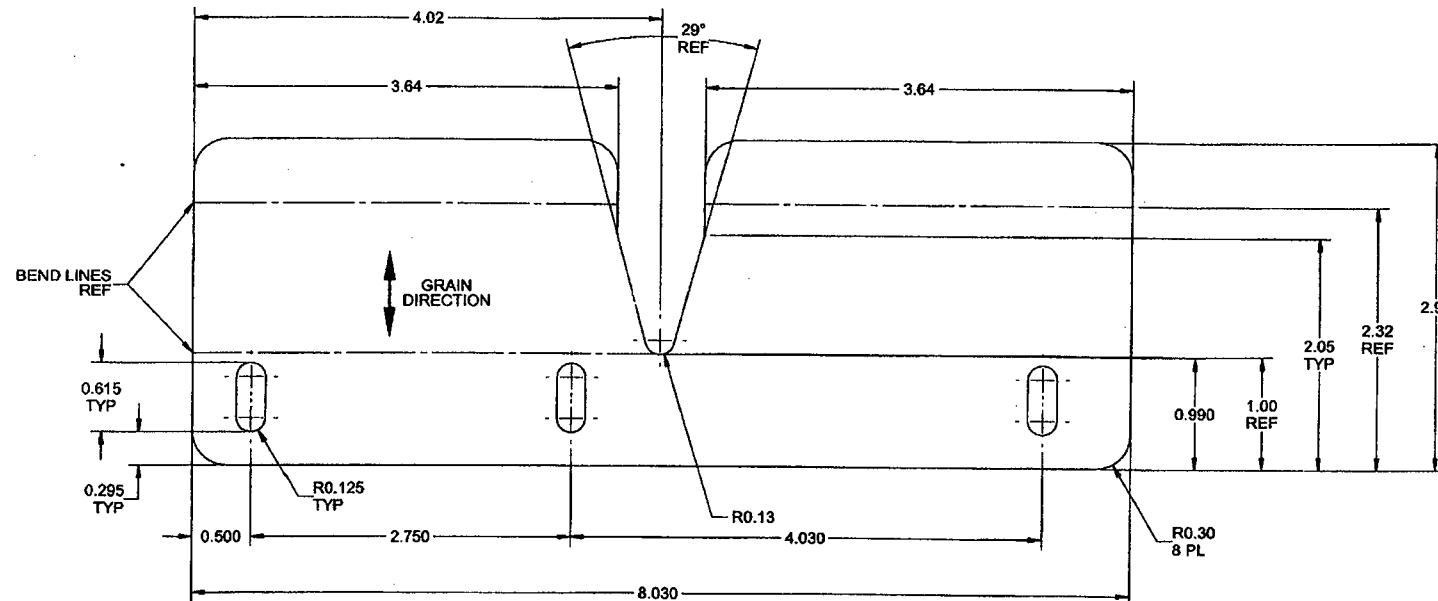


RELEASED  
2011-07-18  
MM

|            |          |                             |
|------------|----------|-----------------------------|
| DESIGN     |          | DART AEROSPACE LTD          |
| DRAWN      |          | HAWKESBURY, ONTARIO, CANADA |
| CHECKED    |          | REV. E                      |
| MFG. APPR. |          | SHEET 3 OF 4                |
| APPROVED   |          |                             |
| DE APPR.   |          | SCALE                       |
| DATE       | 11.07.11 | NTS                         |

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75206



D3199-3F FLAT PATTERN

RELEASED  
2011-07-18  
MM

## NOTES:

- 1) MATERIAL: AISI 304/316 SS SHEET, 0.040 THICK, ANNEALED, 2B FINISH  
PER MIL-S-5059, OR AMS 5513 (304) OR AMS 5524 (316) OR ASTM A240 OR ASME SA240  
REF DART SPEC M304S20GA
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.25 lbs

|            |                    |                             |
|------------|--------------------|-----------------------------|
| DESIGN     | <i>[Signature]</i> | DART AEROSPACE LTD          |
| DRAWN      | <i>[Signature]</i> | HAWKESBURY, ONTARIO, CANADA |
| CHECKED    | <i>[Signature]</i> | DRAWING NO. <b>D3199</b>    |
| MFG. APPR. | <i>[Signature]</i> | REV. E<br>SHEET 4 OF 4      |
| APPROVED   | <i>[Signature]</i> | DATE <b>11.07.11</b>        |
| DE APPR.   | <i>[Signature]</i> | SCALE<br>NTS                |
|            |                    | BRACKET                     |

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